VVSG Finalization Issue Log

Prepared at the direction of the CRT Subcommittee of the TGDC

2007-05-30 09:47

This paper has been prepared by the National Institute of Standards and Technology at the direction of the CRT subcommittee of the Technical Guidelines Development Committee (TGDC). It may represent preliminary research findings and does not necessarily represent any policy positions of NIST or the TGDC.

The Technical Guidelines Development Committee is an advisory group to the Election Assistance Commission (EAC), which produces Voluntary Voting System Guidelines (VVSG). Both the TGDC and EAC were established by the Help America Vote Act of 2002. NIST serves as a technical adviser to the TGDC.

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Part I

Overview

This document tracks issues submitted for action by the CRT Subcommittee during and after the TGDC meeting of 2007-05. Older issues are included only if they were raised again or remain unresolved.

Following is the template for documenting new issues.

[Title / ID]

Category:

Global	Issue with the entire VVSG
Terminology	Issue with the Terminology Standard or use of defined terms
Wording	Issue with how something was stated (not what was stated)
Classes	Issue with the system or device classification lattices in the Conformance Clause
Requirements	Issue impacting the intent of one or more requirements

From:

Date:

Summary:

Discussion:

Revised Text:

State: Open

Open	To be addressed or currently being addressed
Closed	Those working on the issue believe that there is nothing more that CRT need do about it. It may be reopened if others disagree. In the event of irreconcilable disagreement, a vote will be scheduled for the final TGDC meeting.

Substate: New

New	Issue received but no action yet
Active	Issue is being discussed
Unclear	Do not understand either the issue itself or what we're expected to do about it
Confirmed	Agree with the problem, but no fix has yet been proposed
Accepted	Agree with the problem and proposed fix (if any)
Accepted in principle	Agree with the problem, but the fix would create more problems
Rejected	No problem found
Rejected in principle	No problem found, but the suggested change was mostly harmless, so we just did it
Inverted	Fixed a problem by doing the opposite of what the submitter intended
Conflict	Issue conflicts with guidance previously received; reconciliation required
STS	Issue belongs to the STS subcommittee
HFP	Issue belongs to the HFP subcommittee
Wack	Issue belongs to the project manager
Out of scope	Issue is not within the jurisdiction of the VVSG
De minimis	The problem, if any, is sufficiently minor that it has been deferred to make time for more important issues
Duplicate of [ID]	This is the same as Issue [ID]; see Issue [ID]
Resolved in [ID]	The fix for Issue [ID] also fixed this; see Issue [ID]
Inoperable	The issue may or may not be valid, but it is not actionable in any event

Effectivity:

Pending	Changes are yet to be made
Sync	Changes were made in local copy but do not yet appear in any posted draft
(Document ID)	Changes appear in the identified document

Part II

State: Open

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Define jurisdiction

Category: Terminology

From: David Flater

Date: 2007-05-22

Summary: "Jurisdiction" has been used with multiple meanings.

Discussion: CRT uses jurisdiction to mean the top level reporting context of the voting system (probably state, possibly county). STS has used it in Physical Security to mean county. Paul Miller uses it to refer to a reporting context at any level. Need to come up with new terms.

Revised Text: N/A

State: Open

Substate: Confirmed

Effectivity: N/A

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Integratability, electronic records, open export

Category: Requirements

From: Patrick Gannon

Date: 2007-05-21

Summary: Objections to current state of integratability and electronic records sections.

Discussion: See 2007-05 TGDC meeting minutes. Patrick Gannon and John Gale requested that this issue remain on the table for further review.

Revised Text: N/A

State: Open

Substate: Unclear

Effectivity: N/A

Absentee ballot is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "Absentee ballot" is not "a ballot resulting from absentee voting." It is the ballot provided to an absent voter. Even if the voter does not mark the ballot, it is still an absentee ballot.

Discussion: From the voting system viewpoint, absentee ballots that were not returned are out of scope.

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Absentee voting is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "Absentee voting" is not "voting than can occur unsupervised at a location chosen by the voter." Absentee voting is the process by which a voter may request and receive a ballot before election day. In some states (Iowa is one) absentee voting can occur at the office of the local election administrator, at a location chosen by the local election administrator, or the administrator can mail the ballot to the voter. The difference between absentee voting and "early voting" is that absentee ballots are enclosed in envelopes and are subject to challenge until they are opened and counted (usually on or immediately before election day). The ballots cast in early voting are deposited directly into ballot boxes and are, therefore, cast before election day. Because they have been cast, challengers cannot effectively raise questions about the eligibility of these voters; there is no way to remove the secret ballot from the tally.

Discussion: N/A

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

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Partisan contest is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "Partisan contest" is not one in which the eligibility to vote in that contest is restricted on party affiliation. A "partisan contest" is one in which the party affiliation of the candidates, if any, is noted on the ballot.

Discussion: Related issues: Nonpartisan contest is defined wrong, General election is defined wrong, Primary election is defined wrong.

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Straight party voting is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "Straight party voting" is selection of all candidates that have been nominated by (or endorsed in some states) a political party by selecting the name of the political party in the designated area of the ballot. Voters may override their straight party votes (in Iowa anyway) by selecting candidates of other parties, or candidates who are not affiliated with a political party. Laws regarding overriding a straight party vote in a vote for n-of-m race vary from state to state. See "crossover vote" (Scratch vote considered harmful).

Discussion: N/A

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Define audit

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: Audit should be defined.

Discussion: N/A

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Define ballot

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: Ballot should be defined.

Discussion: N/A

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Define trusted build

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: Trusted build should be defined.

Discussion: N/A

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Define volume test

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: Volume test should be defined.

Discussion: N/A

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Define witnessed build

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: Witnessed build should be defined.

Discussion: N/A

Revised Text: N/A

State: Open

Substate: New

Effectivity: N/A

Part III

State: Closed

Broken references

Category: Global

From: David Wagner

Date: 2007-03-22

Summary: Many references to sections, requirements, figures, tables, bibliography entries, and notes are incorrect. Can't review the draft until these are fixed.

Discussion: Problem does not exist in the material as submitted by CRT (see http://vote.nist.gov/TGDC/crt/CRT-WorkingDraft-20070220/CRT-WorkingDraft-20070220.html). All regressions were introduced editorially. Project manager has stated that these regressions will be corrected by the editorial team before release of the final draft.

Revised Text: N/A

State: Closed

Substate: Wack

Effectivity: N/A

Test case vs. test

Category: Terminology

From: Lynne Rosenthal

Date: 2007-05-22

Summary: Confused by use of terms test, test case, test suite. Use in Volumes IV and V seems inconsistent.

Discussion: OK.

Revised Text:

Glossary:

> **inspection:** Examination of a product design, product, process or installation and determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements. ([ISO 17000:2004])

> **operational test:** Test conducted on voting equipment in an active (operational) state.

> **operational testing:** Testing using operational tests.

> **test:** Procedure used to determine one or more characteristics of an object of conformity assessment. Note: A test may be an operational test or a non-operating test (e.g., an inspection).

> **test method:** Description of one or more tests, procedures by which tests are derived, or a combination of these.

> **test suite:** Implementation of a set of operational tests for a particular object (e.g., a specific voting system) or class of objects (e.g., all voting systems that can interpret the language in which the test data are expressed).

> **testing:** Determination of one or more characteristics of an object of conformity assessment, according to a procedure. Note: "Testing" typically applies to materials, products or processes. ([ISO 17000:2004])

Global replacements:

1. Prefer the most general term "test" wherever possible.

2. Use "operational test" where necessary.

3. Never use "test case."

State: Closed

Substate: Accepted

Effectivity: Pending

"Required tests" considered harmful

Category: Wording

From: Lynne Rosenthal

Date: 2007-05-23

Summary: Don't use the phrase "required test(s)" and if possible, avoid "tests are in Vol 5"—both these imply that Vol 5 contains the actual tests that we are developing outside the VVSG. Vol 5 contains requirements for the types of tests, conditions, environments, data to be used, volume of tests, benchmarks, etc. We don't need to say "required tests" since it's a bit redundant—the tests are stated as requirements.

Discussion: OK.

Revised Text:

Global change: Don't use the phrase "required test(s)" and if possible, avoid "tests are in Vol 5."

State: Closed

Substate: Accepted

Effectivity: Pending

"Certification" considered harmful

Category: Wording

From: Lynne Rosenthal

Date: 2007-05-23

Summary: References to certification are out of scope. Should write the VVSG such that it could be used by any test lab and certifying authority, not just the EAC and its accredited labs.

Discussion: Used to say "qualification testing" in 2002 VSS; EAC globally changed to "certification testing" in VVSG'05. Don't think it would cause a conflict to remove the references to certification.

Revised Text:

Global change: Change Certification Testing to either testing or conformity assessment. Also avoid using "certification," "certifying," "certification process," etc.

State: Closed

Substate: Accepted

Effectivity: Pending

Acc-VS needs moving

Category: Classes

From: John Cugini

Date: 2007-05-22

Summary: Acc-VS should be a subclass of VEBD-V and VEBD-A.

Discussion: OK

Revised Text: Change Terminology Standard and Conformance Clause accordingly.

State: Closed

Substate: Accepted

Effectivity: Pending

Assumption that instructions were followed

Category: Requirements

From: David Flater

Date: 2007-05-23

Summary: Should clarify that the requirements of the VVSG all assume that the voting system was deployed, calibrated, and tested in accordance with the instructions provided by the vendor. More than once, requirements have been challenged on the grounds that noncompliance is caused by user error that the system cannot prevent.

Discussion: N/A

Revised Text: Add a "Procedures required for correct system functioning" subsection under General Requirements with that assumption.

State: Closed

Substate: Accepted

Effectivity: Pending

Misfeed rate should apply to EBMs

Category: Requirements

From: Chris Backert

Date: 2007-05-21

Summary: Misfeed rate only applies to paper-based tabulators but EBMs can misfeed too.

Discussion: OK.

Revised Text: Expand Applies-to of misfeed rate requirement to include EBMs and move it to the general section.

State: Closed

Substate: Accepted

Effectivity: Pending

No confidence in VVSG

Category: General

From: Sandy Steinbach

Date: 2007-05-18

Summary: It is extremely difficult for me, as an election administrator, to have any confidence in this document when its authors clearly have so much confusion and obvious misunderstanding of the process they are trying to facilitate. For example, many of the definitions in Chapter 2 are simply wrong.

Discussion: Can only deal with specific examples. See Absentee ballot is defined wrong, Absentee voting is defined wrong, Partisan contest is defined wrong, Nonpartisan contest is defined wrong, Primary election is defined wrong, General election is defined wrong, Straight party voting is defined wrong, VVPAT is defined wrong, and VVPR is defined wrong.

Revised Text: N/A

State: Closed

Substate: Inoperable

Effectivity: N/A

Scratch vote considered harmful

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "Crossover vote" is defined as "scratch vote." Scratch vote is not a term I have heard used in 25 years as an election administrator. Beware of local terminology that may not be in general use.

Discussion: The term "scratch vote" was used in Utah (Solicitation #DG5502). "Crossover vote" has been used in different senses by different election administrators. We don't need more than one term—but better to keep the one that is unknown than the one that might be misconstrued.

Revised Text: Delete "crossover vote."

State: Closed

Substate: Inverted

Effectivity: Pending

Primary election is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "Primary election" is not an "election in which there are partisan contests." Primary elections may be either partisan, or nonpartisan, or both. A primary election is held to select candidates for the next, usually final, election.

Discussion: See Partisan contest is defined wrong.

Revised Text: N/A

State: Closed

Substate: Resolved in Partisan contest is defined wrong

Effectivity: N/A

General election is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "General election" is not an "election in which there are no partisan contests"— far from it. The general election is the most partisan of elections. It is the election at which federal offices, such as President & Vice President, US Senators, and US Representatives are chosen. Many other offices are voted upon at that election: state, county, and local. It is held on the first Tuesday after the first Monday in November of even-numbered years.

Discussion: See Partisan contest is defined wrong.

Revised Text: N/A

State: Closed

Substate: Resolved in Partisan contest is defined wrong

Effectivity: N/A

Nonpartisan contest is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: "Nonpartisan contest" is not one in which "eligibility to vote in that contest is independent of political party affiliation, or lack thereof." A nonpartisan contest is a race in which the party affiliation of the candidates is not noted on the ballot.

Discussion: See Partisan contest is defined wrong.

Revised Text: N/A

State: Closed

Substate: Resolved in Partisan contest is defined wrong

Effectivity: N/A

VVPAT is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: VVPAT: (Voter-Verified Paper Audit Trail). This is more accurately a "voter verifiable paper audit trail." See additional summary in VVPR is defined wrong.

Discussion: See VVPR is defined wrong.

Revised Text: N/A

State: Closed

Substate: Resolved in VVPR is defined wrong

Effectivity: N/A

VVPR is defined wrong

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: VVPR: (Voter-Verified Paper Record) If the voter does not actually review the VVPAT, it is not "voter verified." This is more accurately a "voter verifiable paper record." Use of the term "voter-verified" is an assumption, not a description based on facts. "Voter verification" is not a testable feature. Presenting something for a voter to verify is very different from the voter actually performing the task.

The use of the term "voter verified" implies that some features of voting systems may make voting equipment more reliable by providing additional opportunities for voters to review their ballots. Presenting one more opportunity for a voter to review a ballot does not mean that the voter will actually do it. Describing the process as "voter-verified" is dishonest, and it is certainly not a testable feature.

Discussion: OK.

Revised Text: Globally replace "verified" with "verifiable."

State: Closed

Substate: Accepted

Effectivity: Sync

Invalid assumptions

Category: General

From: Sandy Steinbach

Date: 2007-05-18

Summary: Within the text there are numerous assumptions that may well be based upon election laws somewhere, but they are not applicable everywhere.

Discussion: Can only deal with specific examples. See Invalid assumptions regarding write-in votes and Invalid assumption that choice of party should be private.

Revised Text: N/A

State: Closed

Substate: Unclear

Effectivity: N/A

Technical language

Category: General

From: Sandy Steinbach

Date: 2007-05-18

Summary: Much of the actual text of the guidelines is written in technical language. Despite a promise to "disambiguate" the language of the guidelines, it is not accessible to the non-technical reader. Taken with the apparent ignorance displayed in the definitions section, this leads me to be suspicious of whether this set of guidelines is actually useful to the states.

Discussion: Volumes II through V of the Guidelines are intended primarly for use by vendors and test labs. A tutorial for the non-technical reader is to be produced by the project manager for Volume I.

See also, No confidence in VVSG.

Revised Text: N/A

State: Closed

Substate: Wack

Effectivity: N/A

Table of contents is broken

Category: General

From: Sandy Steinbach

Date: 2007-05-18

Summary: The table of contents appears to be in need of editorial attention. The table of contents in Volume One includes three chapters called "Chapter 1" and two chapters called "Chapter 2." The organization is confusing at best. Following Chapter 14 in the table of contents, there is another set labeled "Chapters 1 through 6," which is followed by a third series beginning with Chapter 1 again. This document is hardly ready for final adoption.

Discussion: Problem does not exist in the material as submitted by CRT (see http://vote.nist.gov/TGDC/crt/CRT-WorkingDraft-20070220/CRT-WorkingDraft-20070220.html). All regressions were introduced editorially. Project manager has stated that these regressions will be corrected by the editorial team before release of the final draft.

Revised Text: N/A

State: Closed

Substate: Wack

Effectivity: N/A

Missing fields

Category: General

From: Sandy Steinbach

Date: 2007-05-18

Summary: There are numerous places that read, "Source: Click here to add the source." Or "Impact: Click here to add the impact." I presume that these gaps will be available for comment at some time.

Discussion: Sources have been provided where applicable. Project manager has stated that unused source fields and all impact fields will be deleted by the editorial team before release of the final draft.

Revised Text: N/A

State: Closed

Substate: Wack

Effectivity: N/A

Invalid assumptions regarding write-in votes

Category: Terminology

From: Sandy Steinbach

Date: 2007-05-18

Summary: Reconciliation of write-in votes (2.6.3.1) includes the outrageous assumption (at least in Iowa) that write-in votes are counted "only if the election is close enough to warrant the effort." Under Iowa law all votes are counted in order to determine the outcome. At the time the votes are counted (largely on election night) there is no way to know whether any individual vote will make a difference. Further, any voter may write in the name of any person for any office. Under this process it would be impossible for the voting equipment to reconcile write-in votes.

Discussion: The informative text in VVSG draft 20070515 III.2.6.3.1 says, "In some systems, write-in votes are counted as anonymous ballot positions, and these votes are assigned to candidates through manual post-processing only if the election is close enough to warrant the effort. Although this approach does not conform to the *Write-ins* class, the system's handling of write-in positions is identical to its handling of other ballot positions, so the behavior is testable."

This is not an assumption that is imposed on all systems, but a possibility that is allowed by the Guidelines. As stated, a system that implements write-in voting in this manner does not satisfy the requirements for the class *Write-ins*; the requirement to support reconciliation therefore is not applicable.

Revised Text: N/A

State: Closed

Substate: Rejected

Effectivity: N/A

Invalid assumption that choice of party should be private

Category: Requirements

From: Sandy Steinbach

Date: 2007-05-18

Summary: The concern expressed in 1.5.1 about the lack of secrecy afforded to some voters in the selection of a political party ballot in a primary election is not applicable everywhere. In Iowa, for example, this is not a private matter. The voter's choice of a political party is a matter of public record.

Discussion: The intended citation in VVSG draft 20070515 was I.3.2.9.1 (informative). The discussion of privacy for party selection has to do with open primaries, where the voters are allowed to vote the ballot style belonging to a different party than the one with which they are affiliated (such affiliation often being a matter of public record).

There is a relevant requirement (III.17.6.1-B.4 DRE and EBP, open primaries, party selection should be private), but it is a "should." Unclear that there is any reason to remove this "should."

Revised Text: N/A

State: Closed

Substate: Rejected

Effectivity: N/A

Disenfranchisement vs. inaccuracy

Category: Requirements

From: John Cugini

Date: 2007-05-21

Summary: Does it make sense to have zero tolerance for "disenfranchisement" type failures, e.g., an opscan ballot gets shredded by the tabulator, but to have a nonzero tolerance for counting errors (accuracy benchmark) that could ultimately have the same effect on a given ballot?

Discussion: Yes. A voting system that is software independent (per TGDC Resolution #06-06) preserves the ability to reconstruct the original ballot in the event of counting errors, but a disenfrachisement type failure that shreds every record of the original ballot makes this impossible.

Revised Text: N/A

State: Closed

Substate: Rejected

Effectivity: N/A